

# EUROPEAN PATENT OFFICE

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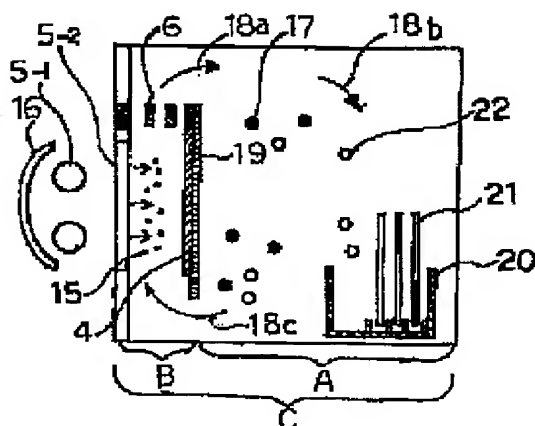
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APPLICANT : EBARA CORP;

INVENTOR : SAKAMOTO KAZUHIKO;

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TITLE : METHOD AND DEVICE FOR  
PURIFYING GAS



ABSTRACT : PROBLEM TO BE SOLVED: To provide a method and a device for purifying gas by which coexisting gaseous contaminant is simultaneously removed in removal of particulates in which photoelectron emission material is used.

SOLUTION: In the method for purifying gas, photoelectrons 15 are discharged by irradiating ultraviolet rays 5-1 and/or radioactive rays to the photoelectron emission material 5-2 in an electric field. Particulates 17 contained in space are charged by these photoelectrons and collected 6. In this case, electrode material 4 for setting the electric field contains a photocatalyst and gaseous contaminant contained in gas is simultaneously removed. The above-mentioned electrode material is obtained by adding  $\text{TiO}_2$ ,  $\text{ZnO}$ , etc., being semiconductor material of the photocatalyst onto the base material.

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